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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,438	12/16/2004	Samuel Sami	0206-P03325US1	7802
110 DANN. DORF	7590 02/16/200 MAN, HERRELL & S	EXAM	EXAMINER	
1601 MARKE	•	DOERRLER, WIL	DOERRLER, WILLIAM CHARLES	
SUITE 2400 PHILADELPHIA, PA 19103-2307			ART UNIT	PAPER NUMBER
	•	3744		
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SHORTENED STATUTOR	RY PERIOD OF RESPONSE	MAIL DATE	· DELIVERY MODE	
3 MONTHS 02/16/2007			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Analicant(a)			
Office Action Summary		Application No.	Applicant(s)			
		10/518,438	SAMI ET AL.			
	Onice Action Summary	Examiner	Art Unit			
	The MAILING DATE of this communication app	William C. Doerrier	3744			
Period fo		Jears on the cover sheet with the	s correspondence address			
WHIC - Exter after - If NO - Failu Any r	ORTENED STATUTORY PERIOD FOR REPL' CHEVER IS LONGER, FROM THE MAILING D. ISIONS of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. It period for reply is specified above, the maximum statutory period or reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDO	ON. e timely filed om the mailing date of this communication. NED (35 U.S.C. § 133).			
Status						
1)	Responsive to communication(s) filed on	_·				
2a) <u></u> □	This action is FINAL . 2b) ☑ This action is non-final.					
3)	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
	closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11,	453 O.G. 213.			
Dispositi	on of Claims					
5) □ 6) ⊠ 7) ⊠ 8) □ Applicati	Claim(s) 1-23 is/are pending in the application 4a) Of the above claim(s) is/are withdraw Claim(s) is/are allowed. Claim(s) 1-7,9-13 and 15-21 is/are rejected. Claim(s) 8,14,22 and 23 is/are objected to. Claim(s) are subject to restriction and/or ion Papers The specification is objected to by the Examine	wn from consideration.				
 10) ☐ The drawing(s) filed on 16 December 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. 						
Priority u	under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
2) Notice 3) Information	te of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) tr No(s)/Mail Date	4) Interview Summa Paper No(s)/Mail 5) Notice of Informa 6) Other:	Date			

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DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 19, "the expansion valve" lacks clear antecedent basis. An expansion device, not necessarily an expansion valve was claimed in claim 15.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-13 and 15-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobs (3,070,971).

Jacobs discloses a vapor compression refrigeration cycle with a means to produce electricity by the fluid flowing through the capillary tube to charge the air passing through the heat exchanger. The electricity is generated by using a glass capillary tube (line 56 of column 1). When a glass tube is used, the fluid will produce a triboelectric charge in the refrigerant, which in the invention of Jacobs is then transferred to the air.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7,9 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs.

Jacobs discloses a vapor compression refrigeration cycle with a means to produce electricity by the fluid flowing through the capillary tube to charge the air passing through the heat exchanger. The electricity is generated by using a glass capillary tube (line 56 of column 1). Jacobs uses a capillary tube to expand the refrigerant, rather than an expansion valve. Capillary tubes and expansion valves are generally considered equivalent in the refrigeration art with expansion valves offering improved control and capillary tubes offering ease of installation and reduction of costs. It would

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have been obvious to one of ordinary skill in the art at the time of applicants' invention to use an expansion valve with an associated triboelectric material following the valve to improve control over the expansion of the refrigerant while still providing the desired charge to the cooled air.

Allowable Subject Matter

Claims 8,14,22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takeda et al shows an air conditioner that electrically charges the cooled air. Cheng et al shows a system that electrically charges condensate formed. Noble shows a refrigeration system that uses a magnetic compressor to compress electrically charged refrigerant. Chang shows a refrigeration system that uses a refrigerant with electric dipoles. Sami et al shows a magnetic system for increasing the dispersal of refrigerant for evaporation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Doerrler whose telephone number is (571) 272-4807. The examiner can normally be reached on Monday-Friday 6:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

William C Doerrier Primary Examiner Art Unit 3744

WCD